UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,491	10/09/2001	Harry George Direen JR.	NEO-0104	5294

7590 02/11/2004	EXAMINER
Law Offices of Dale B. Halling	CHEN, CHONGSHAN
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	ART UNIT	PAPER NUMBER
24 South, Weber St.	2172	
Colorado Springs, CO 80903		

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-30_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-30_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-30 are pending in this Office Action.

Specification

2.   The specification is objected to because of the following informalities: missing the Brief

Summary of the Invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barr

et al. ("Barr", 5,873,076).

As per claim 1, Barr teaches a search engine system, comprising:

an associative memory (Barr, col. 10, lines 34-44);

Barr does not explicitly disclose a first search engine having a first data input and a

connection to the associative memory; and a second search engine having a second data input

and a connection to the associative memory. However, Barr discloses the query server software

includes a plurality of search engines (Barr, col. 21, lines 15-19). It is obvious the query server software includes a first and second search engine.

As per claim 2, Barr teaches all the claimed subject matters as discussed in claim 1, and further teaches a pre-parser having an input connected to the first data input and an output connected to an input of the first search engine (Barr, col. 24, lines 53-55).

As per claim 3, Barr teaches all the claimed subject matters as discussed in claim 1, and further teaches a hit output queue connected to the first search engine (Barr, col. 21, lines 20-22).

As per claim 4, Barr teaches all the claimed subject matters as discussed in claim 3, and further teaches a proximity search engine connected to an output of the first search engine (Barr, col. 12, lines 30-35. The specification, page 5, lines 24-26, discloses the proximity search engine as a system that allows searches such as find "fire" and "smoke" within 100 characters (words) of each other).

As per claim 5, Barr teaches all the claimed subject matters as discussed in claim 4, and further teaches a key list connected to the proximity search engine (Barr, col. 4, lines 19-23).

As per claim 6, Barr teaches all the claimed subject matters as discussed in claim 5, and further teaches a proximity hit queue connected to the proximity search engine (Barr, col. 21, lines 20-22).

As per claim 7, Barr teaches all the claimed subject matters as discussed in claim 1, and further teaches the first search engine includes a transform generator (Barr, col. 26, lines 36-41).

As per claim 9, Barr teaches all the claimed subject matters as discussed in claim 5, and further teaches the key list contains at least two text strings and a distance between the at least two text strings (Barr, col. 12, lines 30-35).

As per claim 10, Barr teaches all the claimed subject matters as discussed in claim 1, and further teaches a packet input queue connected to the associative memory (Barr, col. 21, lines 20-22).

5.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barr et al. ("Barr", 5,873,076) in view of Barrett et al. ("Barrett", 6,490,584).

As per claim 8, Barr teaches all the claimed subject matters as discussed in claim 7, except for explicitly disclosing the transform generator converts an input data into address and a confirmer. Barrett teaches the transform generator converts an input data into address and a confirmer (Barrett, col. 7, lines 63-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to convert an input data into address and a confirmer in order to use the converted data to retrieve information.

6.   Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over August et al. ("August", 6,647,383).

As per claim 11, August teaches a method of operating a search engine system, comprising the steps of:

forming a packet of data (August, col. 9, lines 57-60);

starting a sliding window search on the packet of data (August, col. 23, lines 14-16);

when a match is found, determining a location of the match (August, col. 23, lines 14-16).

August does not explicitly disclose the packet of data contains a start flag. However, it is well known in the art that the packet data transmitted in network has a start flag.

As per claim 19, August teaches all the claimed subject matters as discussed in claim 11, except for explicitly disclosing the detailed steps of forming a packet data. However, these steps are well known in the art for sending and receiving packet data.

7.   Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over August et al. ("August", 6,647,383) in view of Brown et al. ("Brown", 6,665,666).

As per claim 12, August teaches all the claimed subject matters as discussed in claim 11, except for explicitly disclosing parsing a raw data to find a predetermined set of characters; when the predetermined set of characters is found, replacing the predetermined set of characters with a replacement set characters. Brown teaches disclosing parsing a raw data to find a predetermined set of characters; when the predetermined set of characters is found, replacing the predetermined set of characters with a replacement set characters (Brown, col. 3, lines 63-66, col. 11, lines 64-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to parse and replace the data in the system of August in order to standardize the format of data so that the search engine can easily compare the data.

As per claim 13, August and Brown teach all the claimed subject matters as discussed in claim 12, except for explicitly disclosing defining the predetermined set of characters to be any combination of white space characters; defining the replacement set of characters as a space character. However, August and Brown teach a sliding window searching engine that searches key words that must fall relative to one and other within a defined distance (Brown, col. 13, lines 20-43). It is obvious the search engine will replace any combination of white space characters with a space character in order to find the distance between the key words. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

replace any combination of white space characters with a space character in order to find the distance between the key words and perform the proximity search.

As per claim 14, August and Brown teach all the claimed subject matters as discussed in claim 12, except for explicitly disclosing defining the predetermined set of characters to be all capital letter; defining the replacement set of characters as a corresponding lower case letter. However, it is obvious to replace the capital letter with its corresponding lower case letter in order to standardize the format of data so that the search engine can easily compare the data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the capital letter with its corresponding lower case letter in order to standardize the format of data so that the search engine can easily compare the data.

8.   Claims 15-18 and 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over August et al. ("August", 6,647,383) in view of Barr et al. ("Barr", 5,873,076).

As per claims 15-18, August teaches all the claimed subject matters as discussed in claim 11, except for explicitly disclosing the claimed steps of searching. However, August discloses a slide window searching (August, col. 23, lines 14-15), and Barr discloses a proximity searching (Barr, col. 12, lines 30-34). In the slide window searching and proximity searching, the search engine first locates the first search term, then determines whether the next search term falls within desired distance of the first search term. It is obvious the slide window searching and proximity searching includes the claimed steps of searching in order to determine whether the distance between the search terms fall relative to one and other.

As per claim 20, August teaches a search engine system comprising:

an associative match memory (August, col. 27, lines 17-25);

a sliding search engine connected to the associative match memory (August, col. 23, lines 14-16).

August does not explicitly disclose a proximity search engine connected to an output of the sliding search engine. Barr teaches a proximity search engine (Barr, col. 12, lines 30-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a proximity search engine connected to an output of the sliding search engine in the system of August in order to search key words that fall within a desired distance.

As per claim 21, August and Barr teach all the claimed subject matters as discussed in claim 20, and further teach a plurality of sliding search engines that are each connected to a separate data stream (August, col. 23, lines 14-16).

As per claim 22, August and Barr teach all the claimed subject matters as discussed in claim 20, and further teach a plurality of proximity engines are connected the sliding search engine (Barr, col. 12, lines 30-35).

As per claim 23, August and Barr teach all the claimed subject matters as discussed in claim 20, and further teach a pre-parser connected to one of the sliding search engine (Barr, col. 24, lines 53-55).

As per claim 24, August and Barr teach all the claimed subject matters as discussed in claim 23, except for explicitly disclosing a mapping table. However, it is well known in the art that a parser includes a mapping table so that the parser can identify data and replace it with its corresponding data.

As per claim 25, August and Barr teach all the claimed subject matters as discussed in claim 24, except for explicitly disclosing an entry in the mapping table contains a characters to

be replaced location and a replacement characters location. However, it is well known in the art

that mapping table is used to store information between the mapped data and the its replacing

data.

As per claim 26, August and Barr teach all the claimed subject matters as discussed in

claim 20, and further teach plurality of proximity search engines connected to the sliding search

engine (Barr, col. 12, lines 30-35).

As per claim 27, August and Barr teach all the claimed subject matters as discussed in

claim 26, and further teach a key list memory connected to the proximity search engine (Barr,

col. 4, lines 19-23).

As per claim 28, August and Barr teach all the claimed subject matters as discussed in

claim 27, and further teach the key list contains a plurality of locations, at least one of the

plurality of locations contains a primary index, a next index and a proximity offset (Barr, col. 4,

lines 19-23).

As per claim 29, August and Barr teach all the claimed subject matters as discussed in

claim 27, and further teach the proximity search engine contains a proximity hit list (Barr, col.

12, lines 30-35).

As per claim 30, August and Barr teach all the claimed subject matters as discussed in

claim 21, and further teach a data input processor (August, Fig. 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chongshan Chen whose telephone number is 703-305-8319. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703)305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

February 6, 2004

SHAHID ALAM
PRIMARY EXAMINER